

Read the Special Articles this month on the "Children's Diseases."

CALIFORNIA.~~STATE~~ BOARD OF HEALTH

MONTHLY BULLETIN

Vol. 5.

AUGUST-SEPTEMBER, 1909.

No. 3.

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Published the fifteenth of every month at the office of the Board, Sacramento.

Entered as second-class matter, August 15, 1905, at the post office at Sacramento, California,
under the Act of Congress of July 16, 1894.

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REGULAR MEETINGS

The California State Board of Health meets regularly the first Saturday of each month, but the stated meetings of October, January, April, and July constitute the quarterly meetings required by law to be held at the Capitol of the State.

By courtesy of the University of California the Food and Drug Laboratory and the Hygienic Laboratory are located in University buildings at Berkeley, California.

Address all communications to the

SECRETARY, Sacramento, California.

AUGUST--SEPTEMBER BULLETIN.

CHILDREN'S DISEASES FROM AN ECONOMIC STANDPOINT.

WILLIAM F. SNOW.

When the medical examiner for a life insurance company begins the examination of an applicant, he is required to obtain a full history of all the diseases which the applicant has had. In order of frequency the following diseases are named: Measles, mumps, chicken-pox, "German measles," whooping-cough, diphtheria, scarlet fever. The age at the time of having each of these diseases is almost invariably within the limits of school age, and largely within those of grammar school age. In the majority of instances the applicant's mother is the authority for the diagnosis. On further inquiry it is found that the boy next door had the same disease, that he got it at school where it was "going the rounds," and that the mother understood that some doctor had so diagnosed the disease at school. The examiner cares little for this information except for its value in suggesting the cause of a defective heart, or defective eyes or ears, or a disease of the kidneys, which he may find later in his medical examination. He wants to know from the patient how long he was sick; how long he stayed in bed; how his mother nursed him; how soon he regained his weight and strength; for these things determine how carefully he must go into the medical examination of the applicant.

The estimated profits to life insurance companies that have to be forfeited because of physical defects resulting from these "children's diseases" far exceed the total cost of their prevention. Aside from its constituting an important factor in restricting the volume of life insurance business this is a personal loss to the individual seeking the insurance. And these diseases always cause definite family losses—the loss from family funds of the doctor's and nurse's bills, the nursing equipment and drug expense, the recalcimining and cleaning-up expense, and many other miscellaneous items of expense. The public does not escape. Disinfection must be carried out. Frequently the schools must be closed by the Board of Health, but the teachers' salaries do not stop. The churches and theaters may be closed with attendant financial loss to both. The milkman may leave bottles, but can not take any away with him. The doctor has to turn over to another physician several of his cases which he does not like to visit while attending a contagious disease. If the disease spreads the reputation of the town suffers, and its entire commercial and industrial life is in some measure involved. A few deaths may occur. These may also to some degree be estimated in money values. Any business man knows how to estimate along such lines the cost of these diseases in his community. What

would his totals be for the outbreaks of just these four diseases during the past twenty years?

The following figures are an average of several such estimates:

The average individual case of measles costs.....	\$100.00 to \$500.00
The average individual case of whooping-cough....	150.00 to 1,000.00
The average individual case of diphtheria.....	200.00 to 1,500.00
The average individual case of scarlet fever.....	250.00 to 2,000.00

These are estimated community costs, and are additional to the personal loss that each individual may sustain through permanent impairment of his health.

In 1908 California had 189 deaths from measles; 72 from scarlet fever; 173 from whooping-cough; 380 from diphtheria and croup. The case mortality in these diseases is variously estimated as 12 per cent to 15 per cent in diphtheria; 8 per cent to 10 per cent in scarlet fever; 5 per cent to 6 per cent in whooping-cough; 3 per cent to 4 per cent in measles. The above deaths would therefore indicate that California had from 4,725 to 6,300 cases of measles; from 2,883 to 3,460 cases of whooping-cough; from 2,533 to 3,166 cases of diphtheria; and from 720 to 900 cases of scarlet fever. The above minimum cost per case gives the following totals:

4,725 cases measles at \$100.....	\$472,500 00
2,883 cases whooping-cough at \$150.....	632,450 00
2,533 cases diphtheria at \$200.....	506,600 00
720 cases scarlet fever at \$250.....	180,000 00
Total	\$1,791,550 00

The maximum estimate gives \$11,959,000. It is probable that the actual figures lie well within these extremes.

Epidemiologists are working for returns more worthy than the saving of expense to the public or the individual—the protection of the health and happiness of the whole human race, but the tools with which the work must be done can only be obtained through the influence and intelligent coöperation of the citizens. These tools are good laws, properly trained and fully equipped health officers, and conscientious compliance with all health regulations.

No one can estimate the actual number of the 10,000 to 14,000 cases of these four diseases, which might have been prevented in 1908 by adequate public health measures, but it would undoubtedly have been a large percentage.

DEATHS FROM DIPHTHERIA, SCARLET FEVER, WHOOPING-COUGH, AND MEASLES.

GEORGE D. LESLIE.

The children's epidemic diseases—measles, scarlet fever, whooping-cough, and diphtheria and croup—cause relatively more deaths in the rural districts of California than in the twenty-four freeholders' charter cities. Thus, in 1908, the proportion per 1,000 total deaths for measles was 3.4 in rural districts against 3.1 in the twenty-four cities; for scarlet fever was 5.0 in rural districts against 2.0 in the cities; for whooping-cough was 5.6 in rural districts against 4.1 in cities; and for diphtheria and croup was 13.3 in rural districts against 11.8 in cities.

The detailed figures appear in the following table, together with data for individual cities:

Number and Proportion of Deaths from Measles, Scarlet Fever, Whooping-cough, and Diphtheria and Croup, for Individual Cities and Rest of State: 1908.

CITY.	Deaths: 1908.	Measles	Scarlet fever	Whooping-cough	Diphtheria and croup.....	Proportion per 1,000 Total Deaths.			
						Measles	Scarlet fever	Whooping- cough	Diphtheria and croup..
<i>California</i>	31,287	101	104	149	391	3.2	3.3	4.8	12.5
24 Freeholders' charter cities.....	17,480	54	35	71	207	3.1	2.0	4.1	11.8
<i>Northern California.</i>									
Eureka.....	198				2				
Napa.....	77			1	2			13.0	26.0
Santa Rosa.....	107								
Grass Valley.....	88	1			2	11.4			22.7
<i>Central California.</i>									
San Francisco.....	6,260	23	17	25	81	3.7	2.7	4.0	12.9
Alameda.....	345			1	3			2.9	8.7
Berkeley.....	448	4			4	8.9			8.9
Oakland.....	1,646	2	1	5	13	1.2	0.6	3.0	7.9
Salinas.....	63								
San Jose.....	389	3			6	7.7			15.4
Santa Cruz.....	167	3		2		18.0		12.0	
Watsonville.....	103	1			1	9.7			9.7
Fresno.....	365	2	1	4	10	5.5	2.7	11.0	27.4
Sacramento.....	755	1	2	4	15	1.3	2.7	5.3	19.9
Stockton.....	481		2	1	5		4.1	2.1	10.4
Vallejo.....	192	2				10.4			
<i>Southern California.</i>									
Los Angeles.....	3,752	7	11	16	48	1.9	2.9	4.3	12.8
Long Beach.....	219				3				13.7
Pasadena.....	373	1			1	2.7			2.7
Santa Monica.....	110			2				18.2	
Riverside.....	204		1	2	4		4.9	9.8	19.6
San Bernardino.....	262			5				19.1	
San Diego.....	701	4		2	6	5.7		2.9	8.6
Santa Barbara.....	175			1	3			5.7	17.1
Rest of State.....	13,807	47	69	78	184	3.4	5.0	6.5	13.3

The proportion of deaths from measles was above the city average, 3.1 per 1,000, for nine cities, as follows: Santa Cruz, 18.0; Grass Valley, 11.4; Vallejo, 10.4; Watsonville, 9.7; Berkeley, 8.9; San Jose, 7.7; San Diego, 5.7; Fresno, 5.5; and San Francisco, 3.7. On the other hand, there were no deaths from measles in 1908 in the following eleven cities: Eureka, Napa, Santa Rosa, Alameda, Salinas, Stockton, Long Beach, Santa Monica, Riverside, San Bernardino, and Santa Barbara.

The proportion for scarlet fever exceeded the city average, 2.0 per 1,000, in the following six cities: Riverside, 4.9; Stockton, 4.1; Los Angeles, 2.9; and Fresno, Sacramento, and San Francisco, each 2.7. There were no deaths from scarlet fever in the year in no less than seventeen of the twenty-four cities, namely: Eureka, Napa, Santa Rosa, and Grass Valley in Northern California; Alameda, Berkeley, Salinas, San Jose, Santa Cruz, Watsonville, and Vallejo in Central California;

and Long Beach, Pasadena, Santa Monica, San Bernardino, San Diego, and Santa Barbara in Southern California.

The proportion for whooping-cough was above the city average, 4.1 per 1,000, for the following nine cities: San Bernardino, 19.1; Santa Monica, 18.2; Napa, 13.0; Santa Cruz, 12.0; Fresno, 11.0; Riverside, 9.8; Santa Barbara, 5.7; Sacramento, 5.3; and Los Angeles, 4.3. There were no deaths from whooping-cough in 1908 in ten cities, as follows: Eureka, Santa Rosa, Grass Valley, Berkeley, Salinas, San Jose, Watsonville, Vallejo, Long Beach, and Pasadena.

The proportion for diphtheria and croup exceeded the city average, 11.8 per 1,000, in the following ten cities: Fresno, 27.4; Napa, 26.0; Grass Valley, 22.7; Sacramento, 19.9; Riverside, 19.6; Santa Barbara, 17.1; San Jose, 15.4; Long Beach, 13.7; San Francisco, 12.9; and Los Angeles, 12.8. There were no deaths from diphtheria and croup in the year in seven cities, as follows: Eureka, Santa Rosa, Salinas, Santa Cruz, Vallejo, Santa Monica, and San Bernardino.

The preceding table also shows that in Eureka, Santa Rosa, and Salinas in 1908 there were no deaths at all from any of the children's epidemic diseases—measles, scarlet fever, whooping-cough, and diphtheria and croup. Certain other cities reported deaths from only one of these four diseases, namely: Vallejo, 2 deaths from measles; Long Beach, 3 deaths from diphtheria and croup; Santa Monica, 2 deaths from whooping-cough; and San Bernardino, 5 deaths from whooping-cough.

APPLICATION OF SCIENCE TO DIPHTHERIA.

A. R. WARD.

Diagnosis.—The fact that the diphtheria bacillus selects for attack a portion of the body readily accessible, makes it possible for the laboratory to be of the greatest assistance in the management of the disease. The physician may obtain definite information from the bacteriologist, with very little trouble. Outfits for collecting material from the throat and for mailing the same are supplied by the laboratory and may be had for the asking.

The greatest use of a laboratory in diphtheria is in furnishing a means for reaching an early diagnosis. This permits of the early administration of antitoxin, in positive cases, with the well known advantage of prompt treatment.

During epidemics, when the presumption is rather strong that a membrane in the throat is diphtheria, antitoxin may be given upon the first visit and a culture may be sent to the laboratory for the purpose of confirming the diagnosis. It has been the experience of many physicians using the laboratory that the imposition of quarantine in a case of diphtheria is rendered much easier when a confirmatory laboratory report is available.

The laboratory examination eliminates the troublesome task that formerly confronted the practitioner in making a differential diagnosis between diphtheria and throat lesions of scarlet fever. Then, again, diphtheria may exhibit lesions of a mild type, readily mistaken for tonsillitis. The necessity for a diagnosis in such cases is particularly important in order that the individuals so affected may be prevented

from transmitting the disease. More susceptible individuals might take the infection and develop a dangerous illness.

After a case has apparently recovered, laboratory examinations should be utilized for determining the duration of quarantine. It is not possible to designate any particular period of quarantine after which it is safe to assume that the throat of the convalescent is free from diphtheria bacilli. People recovered from the disease carry the diphtheria bacilli in the throat for variable periods, and are sources of infection. Other people who have not had the disease may be carriers of infection. Where laboratory facilities are available it is a very common practice to maintain quarantine and take cultures at intervals until the laboratory has made two successive negative reports. The utmost efforts should be made to restrict the number of "carriers" at large in a community.

Diphtheria Antitoxin.—The horse is utilized in the preparation of this curative agent. From time to time the subject is given hypodermically, gradually increasing doses of fluid in which diphtheria bacilli have been grown. This contains the toxin of the diphtheria bacilli, and the effect of the injection is to develop in the blood serum of the horse a high resistance to the toxin. After tests have demonstrated the fact that the horse serum has reached the proper potency, large amounts of serum are withdrawn and packed for distribution for therapeutic use.

The production of antitoxin is allowed only in establishments licensed after inspection by representatives of the United States Public Health and Marine Hospital Service. The hygienic laboratory of this federal department coöperates with the various manufacturers in a way to insure the proper standardization of the product, and also examines specimens to insure that the proper standards are being maintained.

The effectiveness of diphtheria antitoxin is well stated in the following quotation from Biggs and Guerard:

"It matters not from what point of view the subject is regarded, if the evidence now at hand is properly weighed, but one conclusion is or can be reached—whether we consider the percentage of mortality from diphtheria and croup in cities as a whole, or in hospitals, or in private practice; or whether we take the absolute mortality for all the cities of Germany whose population is over 15,000, and all the cities of France whose population is over 20,000; or the absolute mortality for New York City, or for the great hospitals in France, Germany, and Austria; or whether we consider only the most fatal cases of diphtheria, the laryngeal and operative cases; or whether we study the question with relation to the day of the disease on which treatment is commenced, or the age of the patient treated; it matters not how the subject is regarded or how it is turned for the purpose of comparison with previous results, the conclusion reached is always the same, namely, there has been an average reduction of mortality from the use of antitoxin in the treatment of diphtheria of not less than 50 per cent, and under the most favorable conditions a reduction to one quarter or even less, of the previous death rate. This has occurred not in one city at one particular time, but in many cities, in different countries, at different seasons of the year, and always in conjunction with the introduction of antitoxin serum and proportionate to the extent of its use."

Disinfection.—There is the greatest probability that diphtheretic infection will be carried by articles that have been in intimate contact with the patient. Tableware, bedding, clothing, and other articles which will not be injured by it, may be rendered safe by thorough boiling. Toys and the like had best be burned. The relatively lesser danger of infection from dust in the room may be met by a thorough cleaning of the room, following by disinfection with formaldehyde gas. Experi-

ments conducted in the State Hygienic Laboratory have demonstrated that the process as described below is effective.

The room should be rendered air tight by sealing with paper pasted over cracks about doors, windows, etc. Take up the carpets, spread all blankets, etc., about on the furniture.

Provide one pint of formalin and six and one half ounces of potassium permanganate for each one thousand cubic feet of space. A large pail should be provided in which the permanganate is placed. Pour in the formaldehyde and leave the room closed for three hours. The room should not be used until thoroughly aired, for the formaldehyde gas is otherwise apt to be dangerous.

Disinfection is, doubtless, necessary, but this precaution should not be relied upon as an effective measure in exterminating diphtheria. Convalescents and "carriers" with virulent bacilli in their throats are the most important sources of diphtheria in a community.

The subject of the etiological agents responsible for measles, scarlet fever, and whooping-cough is yet under discussion and investigation. There is as yet no general consensus of opinion regarding the causative agents in these diseases, and the subject of proper disinfection is likewise an open one.

Old Diphtheria Outfits.—Recently some delay in reporting upon diphtheria has been occasioned by the fact that physicians have sent in old diphtheria outfits. The serum is useless for growing diphtheria bacilli if it is dried or liquified by the growth of some contaminating micro-organisms that have accidentally gained access to the serum.

Those using the laboratory will please look over the serum in the outfits on hand, and if it is not in proper condition, return the outfits to the laboratory for exchange.

FEEDING CONVALESCENTS.

M. E. JAFFA.

At no period of life, perhaps, is the subject of food more important than during the period of a child's convalescence from disease. During the actual course of the disease there is usually an attending physician, who, if he is properly discharging his duty, prescribes the daily diet as carefully as he does the medicine or other hygienic care. But as soon as the disease is fairly over, and sometimes even before this stage is reached, the physician's visits cease, and the little patient is left to the wisdom or ignorance of the mother, modified by the notions or fads of an advisory board of neighbors and friends.

For this reason the child often fails to regain his normal vigor, and his future ailments or lacks are attributed to the disease itself, instead of being assigned to their real cause, a failure at normal recuperation. These periods of convalescence are very important ones in the child's life, and are sure to bring results for good or evil in his future development.

They are often, indeed, the mother's golden opportunity to do for the child's general development and upbuilding what she has not been able to accomplish before. To force nutrition during ordinary periods in a child's life is often a difficult matter. Habit is strong in the

system, and whatever little sluggishness or impediment has prevented the original formation of a robust constitution, continues to interfere with efforts for improvement.

But nature is quick and persistent in her efforts at repair work, and will take our assistance at such times if at no other. While she is in the mood for building, she will build a little more if we keep her well supplied with material. Many children have come out of the sick room in better condition than they went into it, a condition due entirely to the fact that good nursing and feeding have allowed nature to do more than she had been able to do at any other time.

We must not ignore the other important element in this connection, the quiet, regular life of the well cared for convalescent, which allows nature to devote her best energies to the work in hand, instead of having it diverted from its first need by maintaining the child through long hours of exciting and sometimes exhausting play. Many undesirable tendencies in the constitution are entirely overcome at these times for the same reason perhaps, that while nature is engaged in fighting the acute disease, the same latent force which has been aroused for the emergency continues to act on the subacute or chronic trouble. Whatever the explanation of the process may be, the fact remains that many previous difficulties have been entirely overcome during the progress of one of the eruptive fevers.

Just as we may help to bring about these unlooked for benefits, so we may expect all kinds of unreasonable evils to result from a lack of the proper care and feeding of the child during the period of convalescence.

We say *child* advisedly—for the results of neglect are far worse for them than for an adult, other conditions, of course, being equal.

The food of an adult has only to repair waste and supply heat and energy, while the food of a child has these offices to perform *besides* the most important one of building *new tissue* in the process of growth of the body.

How is it, therefore, with the child, when, at the growing age, instead of building tissue, the system has been busy tearing down this precious material and converting it into fuel to be consumed in the fever? What about the nourishment then?

Let us consider the condition of the little patient at the beginning of his convalescence in order to understand his needs. He is probably pale and thin, with a subnormal temperature in the morning, and a tendency to be nervous or fretful. The last named symptoms show the strain on the nervous system due to the disease, and require rest, quiet and food. The subnormal temperature shows lowered vitality, and therefore the need of nourishing food. The loss of flesh, and sometimes this is so extreme as to apparently deprive the child of nearly all of his fatty tissue, shows the great need of food to supply the waste.

We recognize now at a glance the importance of the question of nourishment, and need only consider *what* that nourishment shall be.

The replacing of the fat is not of such immediate importance as that of the deeper and more permanent tissues. The fat is the first tissue to be broken down in cases of loss of flesh, but the muscle is next drawn upon, and even during convalescence, when the patient begins to

exercise, if the food is insufficient to furnish all the requirements of the body, this dangerous process may continue.

The kind of food that is of first importance is the deep tissue building class, the proteids, such as milk, meat, eggs, etc. The second need is foods that yield heat and energy and build fatty tissue, such as starches, fats and sugars. As it is usually necessary to protect the kidneys from strain after scarlet fever, much meat is ill advised, and most especially should meat extracts be avoided. The fresh beef juice made by squeezing or pressing the juice from rare broiled steak contains more nourishment and less of the stimulating meat extractives, which are a strain on the already overworked kidneys. The child does not need stimulating. He has been living at a very high rate of speed, even though lying in his little bed during those days and nights of fever. The heart has been pounding away at a tremendous rate, and now that the fever is over, and the reaction has come, to urge it to active work again would be like whipping up a tired horse. No tonics or stimulants can take the place of food, and should never be given without the physician's advice.

All food should be of a kind to be easily digested, for while we wish to offer the system a full supply, we do not want to strain its capacity by difficult digestive processes. For instance, the meats should consist of broiled chops or steak, or roasts. All fried foods, mixtures, "warmed overs," and made dishes should be avoided. The "between meals" should consist of food or drink that is especially easy to handle. For two reasons the first food should be given as soon as the little patient is awake. The subnormal temperature in the morning shows lowered vitality at that time and suggests the need of nourishment—and also, if we are to have extra meals, we should have a long day for them, so as to insure proper intervals. A hot drink of malted milk or prune juice and water, or cambric tea (milk and water, or cream and water, with sugar) will prove gratifying, give nourishment, not interfere with the breakfast appetite, and will probably keep the child from showing nerves or temper during the processes of the toilet or the wait for breakfast. If this drink is given at 6:30 A. M. the breakfast may be prepared for 8 or 8:30, about as follows: Mush, soft boiled egg, milk and toast; or, flakes, etc., poached egg on toast, which has been dipped in milk, and stewed fruit, if prune juice has not been given previously.

If a child dislikes milk, do not try to force it by adding chocolate or cocoa. It is not likely to agree with him. It would be far better to use malted milk or "bran coffee" and cream for a hot drink.

At 12:30 a dinner of meat or fish, baked potato, fresh vegetable, and simple dessert should be given.

At 3:30 or 4 P. M. a light meal of custard, junket, arrowroot, orange gelatine, milk, grape juice or fruit may be given, and at 6 or 6:30 a supper which should be light but nourishing. It is difficult to prescribe a meal without knowing what the choice for the previous ones has been. For instance, if egg is not fancied for breakfast, it should be given or used in the cooking of the supper. If no fruit has been used previously, the fruit should appear on the supper tray. If sufficient fruit has been used during the day, then a cereal, rice, or macaroni, and milk, or milk dessert—junket, custard, sago pudding, etc., should be used.

The most important thing is to see that milk and eggs are not neglected. Many children who do not seem to digest eggs well, will do so perfectly if only the white is given. In the same way, if entire milk does not agree, the infant formulas may be resorted to. Four ounces of top milk, four of water, and three teaspoonsful of lime water is an easy one to try.

The fats and oils are especially valuable, and if they are not tolerated by the stomach we may feed them to the patient by inunction. A large amount of olive oil will often be absorbed by the skin if well rubbed in, especially if a previous sponge bath has cleared the pores.

In recommending the full diet that we have, it is, of course, taken for granted that no complication or disability exists that would prohibit full feeding. This should be attended to by a physician.

In order to arrange the meals to the best advantage we should keep the classes of foods in mind, and see that we feed from both classes. A common mistake is to give too much starchy food.

The proteid foods, or what we have called the deep tissue builders, *must* be given in one form or another. Milk is the surest and best of this group, because it may be used in large quantities with impunity; and in this connection we may say that skim milk is just as valuable as whole milk when we are considering protein. If milk does not agree with the child, malted milk may be considered as a second choice, which will furnish a fair amount of proteid. The nut butters, if freshly and well prepared, come under this class, and are especially useful if meat is forbidden and milk does not agree. Dried beans, peas, and lentils used for soup, after long cooking, will also furnish a large proportion of proteid.

Cottage cheese is a most valuable meat substitute, as it contains nearly as much proteid without any of the undesirable extractives found in soup and beef tea.

The second class is not so apt to be overlooked as it includes so many subclasses, all of which furnish us with material to replace the lost fat as well as to furnish heat for the body and energy for work, both muscular and functional.

Of the three subclasses, starch, fat and sugar—fat is worth two and a quarter times as much as the others in *heat production*, a point to remember with some patients.

The starchy foods should be thoroughly cooked, eaten slowly, and combined with some other food that is quickly or easily digested. If the digestion of food seems slow, starchy food should not be repeated too frequently, as slow digestion permits fermentation. Oftentimes the hard or crisp crackers are more quickly digested than bread, and flakes, grape nuts, shredded wheat, etc., are more easily handled than mush by weak stomachs.

The feeding should continue to be the subject of earnest thought until the little patient has passed entirely through the period of convalescence, and is as fat and rosy and active as ever, and has started on the upward road again in gaining weight. The "between meals" may gradually be withdrawn as the patient improves, or as soon as this plan interferes with the appetite of the regular meals. As nature regains her balance, she shows her lessened need of material by a decreasing appetite, and her suggestion should be heeded.

Milk may be used in very many ways so as not to pall upon the appetite. It may be given cold or heated as a drink, in eggnog, in cocoa, as a milk soup, or in milk toast. It may be used instead of water in cooking cereals, as rice, farina, etc., or with arrowroot or cornstarch, and in milk puddings.

Eggs may be given as such, or incorporated into the cooking. The beaten white may be mixed with many articles of food without the patient detecting it, as in arrowroot, after it is cooked, or in baked potato, etc., and may be used for sponge cake, muffins, etc., without inducing a sense of being surfeited with egg.

By supplying all kinds of food—proteid, carbohydrates—fresh vegetables and fruit, etc., we may feel sure that nature has whatever she may need for whatever purpose she may choose. If you do your part as feeder she will do her share as builder, and the result will well repay the thought expended in the process.

COMMENTS.

THE NEIGHBORHOOD DIAGNOSIS.

The following letters are typical of a daily occurrence somewhere in California:

State Health Officer, Sacramento, California.

DEAR SIR: I am writing you, as I do not know to whom else to refer. The ——— children went away for the summer, returned in time for school, and are attending. They have the whooping-cough. Now, is that right? To allow children to be shut up in a schoolroom with a contagious disease. We have a County Health Officer here, but he never does anything but draw his money. I do not want my children to get the whooping-cough. Others are the same. I have my oldest out of school. * * * I have to make my own living by the public, consequently I do not wish to have any enemies. If you have to investigate, please do not mention my name. * * *

(Signed) MRS. ———.

Mrs.,

DEAR MRS.: I have your letter of the 15th concerning whooping-cough in The law specifically states that individuals with such diseases shall not attend the public schools until such time as they are no longer a danger to others. I have taken this matter up with your County Health Officer, whom I had supposed to be an earnest, capable officer. I have no doubt the matter has not been duly brought to his attention.

It will not be necessary for me to use your name in connection with the subject. I shall appreciate further letters from you at any time.

(Signed)
Secretary State Board of Health.

Dr., Health Officer, County of

DEAR DOCTOR: I have received information indirectly that a number of cases of whooping-cough have occurred recently in, and that these cases have been permitted to enter school while they are still a source of danger to other children. Can you furnish me any information on this?

I have written my informants that you will undoubtedly take the matter up at once.

(Signed)
Secretary State Board of Health.

Miss, County Superintendent of Schools,

DEAR MISS: I have received information that there are children in your schools who are convalescing from whooping-cough. Do you know of such cases? If so, have you informed your County Health Officer? You, of course, realize the importance of preventing any children being exposed to any communicable disease through association in the classroom or on the school grounds with individuals not fully recovered.

I shall appreciate an early reply.

(Signed)
Secretary State Board of Health.

State Health Officer, Sacramento, California.

DEAR SIR: Regarding * * * shortly before school opened I was requested by the head of a family, long resident here, which had returned after two weeks spent in, to examine two of the children to see if they had whooping-cough. Examination, of course, in the absence of paroxysms could hardly justify one in being positive, * * * and opinion could be based upon the history only.

It seems there was some sort of cough prevalent at the summer resort * * *, but a physician claimed these two children did not have whooping-cough.

(Signed)
County Health Officer.

Who made the diagnosis for the ——— children at the summer resort? Would the public have approved his course if the Health Officer had excluded the ——— children until the parents presented a certificate from their family physician showing that the children were not a source of danger to the others in the school?

An early diagnosis is of the greatest importance not only in protecting the community, but in insuring to the patient the proper care, so necessary in preventing permanent injury to health from these "children's diseases."

The "neighborhood diagnosis" is one of the great allies of "disease germs" in their battle for supremacy over the growing generation of children. An investment in trained medical inspectors for our schools will yield larger profits than any promotion company in the State can offer us.

DISINFECTION VS. QUARANTINE.

How often has Mrs. A. said to her neighbor, Mrs. B.: "I think it is an outrage that the health officer of this town should make my boy stay out of school three weeks just for measles. Why, when I lived in X——— the city fumigated every house, but they only quarantined the serious diseases"; to which Mrs. B. replies: "Well, I don't know, my doctor says that measles is more serious than smallpox, and that quarantine is just as necessary; but that it won't do much good to keep the children out of school if they get together at home and at Sunday school, or in the library. He says this town ought to quarantine, and disinfect, too"; to which Mrs. C. adds: "My children all had it two years ago, so I don't care. If you had just kept your boy home till he got over breaking-out you could have sent him back to school and the health officer wouldn't have known anything about it."

If the measles spreads, what does it prove?

AFTER THE TEMPERATURE THE TONIC.

The excellent article in this Bulletin on feeding convalescents should be read with special interest. Every mother has had the problem of nursing her children through various illnesses, which do not seem to warrant the expense of a trained nurse or the doctor. The belief is deep rooted in us that after the "fever" is broken we should force the recovery of the child with tonics. Neighborhood advice on this subject is always plentiful and most diverse. The young, overanxious mother tries one tonic after another with varying degrees of apparent success.

Some of these tonics are honestly made, but the proprietor sitting at his desk writing a guarantee for a cure in all "chronic, rundown, or debilitated conditions," etc., knows less of the young mother's problem

than her neighbor. Even the doctor, to whom the child is eventually taken, can not learn from an office consultation all the facts he should know in order to advise the best course to be followed. Many doctors, like the other two advisors, are prone to write out a hurried prescription and dismiss the case.

This young mother should have had an opportunity to learn the practical details of home nursing and treatment when she was in the high school. She should have carefully selected a family physician to whom she felt privileged to go for counsel at any time during the building of her home and family. This physician should have at command a full knowledge of the recuperation powers of the child, and the many other factors that enter into an intelligent judgment as to the proper care of each convalescent.

Tonics at a dollar a bottle are expensive. Mistakes in general are always expensive. The family physician is expensive. However, the latter is the best investment considering the value received.

CASE MORTALITY IN MEASLES.

Sacramento County reported 4 cases of measles with no deaths during August, 1909. Los Angeles County reported during the same month 2 cases and 2 deaths. San Bernardino County reported no cases and one death. The entire State reported 22 cases of measles and 3 deaths.

There were 34 cases of scarlet fever reported, with one death; 47 cases of whooping-cough with 23 deaths; 45 cases of diphtheria and croup with 15 deaths.

The apparent conclusion would be that Los Angeles County had a case mortality of 100 per cent in measles in August, and that scarlet fever for the State was the mildest disease in the group. The real deduction is that scarlet fever is more fully reported to the local health officers than any of the others by the physicians, and that the instructions of the physicians and of the Health Boards are more carefully complied with.

The State Board is endeavoring to place the reporting of communicable diseases on the same efficient basis now provided for the death statistics. In this work most valuable aid is being received from the county and city superintendents of schools. It is far more important to the health of the people that the State Board be informed promptly of the outbreaks of diseases than that it record the resulting deaths that occur.

CENTRAL CALIFORNIA HEALTH OFFICERS' ASSOCIATION.

The Central California Health Officers' Association will meet in Hanford Tuesday, October 12, 1909. The following interesting program will be provided:

Modes of Infection by Tuberculosis—C. C. WALKER, A.B., M.D., D.V.S., Bureau of Animal Industry, Washington, D. C.

The Production of Sanitary Milk—PROF. M. E. JAFFA, University of California.

The Emmanuel Movement from a Clerical Standpoint—REV. ALBERT B. SHIELDS, St. Luke's Hospital, San Francisco.

The Relation of Law to Medicine—HON. JOHN COVERT, Superior Judge Kings County.

DEPARTMENT OF VITAL STATISTICS.

GEORGE D. LESLIE, STATISTICIAN.

VITAL STATISTICS FOR AUGUST.

Marriages.—The marriages reported for August number 1,879, as compared with 1,788 for the same month last year. For an estimated State population of 2,037,929, the August total represents an annual rate of 10.9 against 11.2 for July.

The August totals were highest for the following counties: Los Angeles, 420; San Francisco, 340; Alameda, 201; Sacramento, 79; Santa Clara, 75; Orange, 71; and San Diego, 65.

The aggregate for San Francisco and the other bay counties (Alameda, Contra Costa, Marin, and San Mateo) was 640.

Births.—For August there were reported 2,630 living births, representing an annual birth-rate of 15.2, as compared with 14.6 for the preceding month. The total for the corresponding month last year was 2,408.

The totals were highest for the following counties: Los Angeles, 604; San Francisco, 535; Alameda, 309; Santa Clara, 124; Fresno, 101; San Diego, 67; and Sacramento, 50.

Altogether 1,598 births were registered in the twenty-six freeholders' charter cities, the leading cities being as follows: San Francisco, 535; Los Angeles, 416; Oakland, 200; San Diego, 48; Fresno, 47; Pasadena, 40; San Jose, 37; Berkeley, 32; Sacramento, 30; Alameda, 29; and Riverside, 26.

The aggregate for San Francisco and the transbay cities (Alameda, Berkeley, and Oakland) was 796, and for San Francisco and the other bay counties was 903. Similarly, the total for Los Angeles and neighboring chartered cities (Long Beach, Pasadena, and Santa Monica) was 481, and for the entire county was 604.

Deaths.—Altogether 2,339 deaths, exclusive of stillbirths, were reported for August, the annual death-rate being 13.5, against 13.8 for the month before. The total for the corresponding month last year was 2,415.

The death totals were highest for the following counties: Los Angeles, 518; San Francisco, 452; Alameda, 250; Santa Clara, 88; Sacramento, 62; San Joaquin, 56; and Fresno and San Bernardino, each 52.

There were altogether 1,283 deaths in the twenty-six freeholders' charter cities, the highest totals being as follows: San Francisco, 452; Los Angeles, 319; Oakland, 113; Sacramento, 59; San Diego, 34; Berkeley, 32; San Jose, 28; Stockton, 27; and Pasadena, 26.

The aggregate for the urban district (San Francisco and the transbay cities) was 619, and for the entire metropolitan area (San Francisco and the other bay counties) was 778. Similarly, the total for Los

Angeles and neighboring chartered cities was 365, and for the whole county was 518.

Causes of Death.—In August there were 337 deaths, or 14.4 per cent of all, from diseases of the circulatory system, and 308, or 13.2 per cent, from various forms of tuberculosis.

Other notable causes of death in August were: Violence, 324; diseases of the digestive system, 252; diseases of the nervous system, 225; cancer, 160; Bright's disease and nephritis, 152; diseases of the respiratory system, 136; and epidemic diseases, 123.

Typhoid fever, as usual, led among epidemic diseases, with 49 deaths, against 23 for whooping-cough, 15 for diphtheria and croup, 14 for malarial fever, and 22 for all other epidemic diseases.

The 49 deaths from typhoid fever occurred in the following counties: San Francisco, 9; Los Angeles, 7; Kern and Sacramento, each 3; Butte, Fresno, Riverside, San Bernardino, Santa Clara, and Santa Cruz, each 2; and Alameda, Amador, Colusa, Contra Costa, Lassen, Mariposa, Mendocino, Napa, San Joaquin, Shasta, Solano, Sonoma, Stanislaus, Trinity, and Tulare, each 1.

Further particulars appear in the following table:

Deaths from Certain Principal Causes, with Proportion per 1,000 Total Deaths for Current and Preceding Month, for California: August.

Cause of Death.	Deaths: August.	Proportion per 1,000.	
		August.	July.
ALL CAUSES.....	2,339	1,000.0	1,000.0
Typhoid fever.....	49	29.9	14.2
Malarial fever.....	14	6.0	3.4
Smallpox.....	2	0.8	-----
Measles.....	3	1.3	2.9
Scarlet fever.....	1	0.4	1.3
Whooping-cough.....	23	9.8	10.0
Diphtheria and croup.....	15	6.4	7.5
Influenza.....	3	1.3	0.8
Plague.....	1	0.4	-----
Other epidemic diseases.....	12	5.1	3.8
Tuberculosis of lungs.....	261	111.6	128.0
Tuberculosis of other organs.....	47	20.1	15.9
Cancer.....	160	68.4	66.1
Other general diseases.....	81	34.6	38.5
Meningitis.....	27	11.5	12.1
Other diseases of nervous system.....	198	84.6	87.9
Diseases of circulatory system.....	337	144.4	145.6
Pneumonia and broncho-pneumonia.....	88	37.6	40.2
Other diseases of respiratory system.....	48	20.5	16.3
Diarrhea and enteritis, under 2 years.....	110	47.0	57.8
Diarrhea and enteritis, 2 years and over.....	16	6.8	12.1
Other diseases of digestive system.....	126	53.9	49.4
Bright's disease and nephritis.....	152	65.0	54.4
Childbirth.....	14	6.0	9.2
Diseases of early infancy.....	89	38.0	38.9
Suicide.....	64	27.4	24.3
Other violence.....	260	111.2	96.2
All other causes.....	138	59.0	63.2

Geographic Divisions.—Data for geographic divisions, including the metropolitan area, or "Greater San Francisco," are as follows:

Deaths from Main Classes of Diseases, for Geographic Divisions: August.

Geographic Division.	DEATHS: AUGUST.										
	All Causes	Epidemic Diseases	Tuberculosis (All Forms)	Cancer	Diseases of Nervous System	Diseases of Circulatory System	Diseases of Respiratory System	Diseases of Digestive System	Bright's Disease and Nephritis	Violence	All Other Causes
THE STATE	2,339	123	308	160	225	337	136	252	152	324	322
Northern California	291	24	31	14	34	39	12	34	16	48	39
Coast counties	145	11	12	9	27	20	6	15	7	17	21
Interior counties	146	13	19	5	7	19	6	19	9	31	18
Central California	1,309	70	152	101	112	210	81	129	87	195	172
San Francisco	452	23	43	44	29	85	35	41	36	54	62
Other bay counties	326	12	44	21	42	53	13	31	22	47	41
Coast counties	160	9	24	15	15	25	15	8	8	21	20
Interior counties	371	26	41	21	26	47	18	49	21	73	49
Southern California	739	29	125	45	79	88	43	89	49	81	111
Los Angeles	518	18	85	38	51	66	30	64	34	55	77
Other counties	221	11	40	7	28	22	13	25	15	26	34
Northern and Central California	1,600	94	183	115	146	249	93	163	103	243	211
Metropolitan area	778	35	87	65	71	138	48	72	58	101	103
Rural counties	822	59	96	50	75	111	45	91	45	142	108

DEPARTMENT OF BACTERIOLOGY.

DR. A. R. WARD, DIRECTOR.

NUMBER OF EXAMINATIONS MADE DURING AUGUST, 1909.

	Ex-Pos.	Ex.-Neg.	Total.
Diphtheria	3	27	30
Malaria	..	3	3
Tuberculosis	3	21	24
Typhoid	9	29	38
Water	21
Miscellaneous	6
Total			122

DEPARTMENT OF PURE FOODS AND DRUGS.

PROFESSOR M. E. JAFFA, DIRECTOR.

There have been received at the laboratory several requests concerning the use of colored vinegar, and the following statement on colored vinegars is published in answer thereto:

Colored Vinegars.—At the last session of the legislature an amendment to section 4 of the California Pure Foods Act, March 11, 1907, was adopted, whereby it was provided that vinegar should be deemed to be adulterated if artificially colored.

In order that no injustice might be done to retailers having on hand a supply of such goods, inspectors were directed to take no samples under this section until September 1, 1909.

It has come to the notice of the board that some one has circulated a report that no such samples would be taken until January 1, 1910. Any such report is wholly false and unauthorized. Inspectors now have instructions to take such samples. Artificially colored vinegar will be regarded as adulterated, and prosecutions will be instituted wherever violations are discovered.

The following food inspection decision and notices of judgments have been received at the laboratory since the publication of the last monthly Bulletin:

FOOD INSPECTION DECISION 109.

THE LABELING OF WINES.

On June 30, 1909, a hearing was held before the Secretary of Agriculture and the Board of Food and Drug Inspection on the labeling of Ohio and Missouri wines. After giving full consideration to the data submitted, the Board is of the opinion that the term "wine" without modification is an appropriate name solely for the product made from the normal alcoholic fermentation of the juice of sound ripe grapes, without addition or abstraction, either prior or subsequent to fermentation, except as such may occur in the usual cellar treatment for clarifying and aging. The addition of water or sugar, or both, to the must prior to fermentation is considered improper, and a product so treated should not be called "wine" without further characterizing it. A fermented beverage prepared from grape must by addition of sugar would properly be called a "sugar wine," or the product may be labeled in such a fashion as to clearly indicate that it is not made from the untreated grape must, but with the addition of sugar. The consumer is, under the Food and Drugs Act, entitled to know the character of the product he buys.

Evidence was offered on the preparation of "wine" from the marc. In these cases it appeared customary to add both water and sugar to the marc, and sometimes to use saccharin, coloring matter, preservatives, etc., to make a salable article.

In the opinion of the Board no beverage can be made from the marc of grapes which is entitled to be called "wine" however further characterized, unless it be by the word "imitation." The words "Pomace Wine" are not satisfactory, since the product is not a wine in any sense, but only an "imitation wine" and should be so labeled.

NOTICE OF JUDGMENT.

No. 83. *Fermented Solution of Commercial Dextrose Artificially Colored and Preserved with Benzoic Acid.*

The facts in the cases were as follows:

On or about February 4, 1908, an inspector of the United States Department of Agriculture found in the freight depot of the Illinois Central Railroad in New Orleans, La., 1,298 barrels of so-called wine, labeled and branded as hereinbefore stated in the agreed statement of facts upon which the cases were heard. The goods had been shipped from Sandusky, Ohio, during the months of December, 1907, and January, 1908. Five hundred and thirty-five barrels had been shipped by John

Original

G. Dorn to the following-named person and firms of New Orleans in the amounts stated: T. F. Cunningham, 35; Schmidt & Zeigler (Limited), 130; and Loeb, Lion & Felix (Limited), 60. Six hundred and one barrels had been shipped by A. Schmidt, Jr., Bros. Wine Company to the following-named persons and firms of New Orleans, in the amounts stated: A. E. Murphy, 240; A. Mackie Grocery Company (Limited), 60; Joseph Congelosi & Co., 181; and Frank Vatter, 120. One hundred and sixty-two barrels had been shipped by The Sweet Valley Wine Company to the following-named firms of New Orleans, in the amounts stated: Meanard Brothers, 62; P. A. Best Company, 60; Block Brothers, 15; and Beret Brothers, 25.

Samples of each of the several brands included in the aforesaid shipments were analyzed in the Bureau of Chemistry of the said Department and it was found that:

The wines designated as "Claret Wine," and "Vino Type Claret Wine," and "Vino Puro-Nagherea," and "Vino Corno Claret," and "Vino Type" consisted of a fermented solution of commercial dextrose artificially colored with a dye, preserved with benzoic acid.

The wine designated as "X Ohio Sweet Catawba Wine" consisted of a fermented solution of commercial dextrose and sucrose, artificially sweetened with saccharin, preserved with benzoic acid.

The wine designated as "X Port Wine Type" consisted of a fermented solution of commercial dextrose and cane sugar, artificially colored with a coal-tar dye, sweetened with saccharin. There was present only 10.36 per cent of alcohol, a quantity much below that in true port wine.

The wine designated as "A Ohio Red Wine Vino Type" consisted of a fermented solution of commercial dextrose or starch sugar, artificially colored with a coal-tar dye and preserved with benzoic acid.

The wine designated as "A Ohio Claret Medoc Type Wine" consisted of a fermented solution of commercial dextrose, artificially colored with a coal-tar dye, preserved with benzoic acid.

In the opinion of the Department of Agriculture, wine is the product made by the normal alcoholic fermentation of the juice of sound ripe grapes, and the usual cellar treatment, and contains not less than seven (7) nor more than sixteen (16) per cent of alcohol, by volume, and in one hundred (100) cubic centimeters (20° C.), not more than one-tenth (0.1) gram of sodium chlorid, nor more than two-tenths (0.2) gram of potassium sulphate, and red wine is wine containing the red coloring matter of the skins of grapes.

The analyses of the foregoing products disclosed that they were not made from the juice of grapes, and were artificially colored to imitate true wines, and in the opinion of the Secretary of Agriculture, were not entitled to be branded "wine," and were therefore adulterated and misbranded within the meaning of sections 7 and 8 of the Food and Drugs Act of June 30, 1906.

Accordingly, on February 5, 1908, the Secretary of Agriculture reported the facts to the United States attorney for the eastern district of Louisiana, who forthwith filed libels for seizure and condemnation of the aforesaid 1,298 barrels of wine, with the result hereinbefore stated.

No. 84. *Misbranding of Baked Beans and Tomato Sauce.* (Underweight.)

The facts in the case were as follows:

On or about October 29, 1908, an inspector of the State Board of Health of Indiana, acting under authorization of the Secretary of the United States Department of Agriculture to Dr. H. E. Barnard, State Food and Drug Commissioner of Indiana, in accordance with regulation 3 of the rules and regulations for the enforcement of the Food and Drugs Act of June 30, 1906, found in the possession of the A. Grafe Company, Terre Haute, Ind., 42 cases (each containing 48 cans) of canned, baked beans and tomato sauce, labeled and branded "4 dozen 1 lb. Baked Beans and Tomato Sauce, E. G. Dailey Company, Detroit, Michigan." The goods had been shipped to the A. Grafe Company by the E. G. Dailey Company from Detroit, Mich. A number of these cans were weighed by the inspector and the average gross weight was found to be 14 ounces. The goods were therefore misbranded within the meaning of section 8 of the act, and on October 29, 1908, the facts were reported to the United States attorney for the district of Indiana, and libel for seizure and condemnation was duly filed, with the result hereinbefore stated.

No. 85. *Misbranding of Canned Tomatoes.* (Underweight.)

The facts in the case were as follows:

On or about October 27, 1908, an inspector of the State Board of Health of Indiana, acting under authorization of the Secretary of the United States Department of Agriculture to Dr. H. E. Barnard, State Food and Drug Commissioner of Indiana, in accordance with regulation 3 of the rules and regulations for the enforcement of the Food and Drugs Act of June 30, 1906, found in the possession of the Bement-Rea Company, in Terre Haute, Ind., 34 cases, each containing 24 cans of canned tomatoes labeled and branded "2 dozen 3 lb. Superior Tomatoes. Packed by Sears & Nichols Company, Chillicothe, Ohio, Pentwater, Michigan." The goods had been shipped to the Bement-Rea Company by the Sears & Nichols Company from Chillicothe, Ohio. A number of the cans were weighed by the inspector, and the average gross weight was found to be 40 ounces.

The goods were therefore misbranded within the meaning of section 8 of the act, and on October 29, 1908, the facts were reported to the United States attorney for the district of Indiana, and libel for seizure and condemnation was duly filed, with the result hereinbefore stated.

No. 86. *Misbranding of a Drug Product.* (Saltpetre.)

The facts in the case were as follows:

On October 12, 1907, an inspector of the Department of Agriculture purchased from Thos. Thorkildsen & Co., Chicago, Ill., samples of a drug product labeled "L. Sonneborn Sons, Belleville, N. J., 437-20 Pure Double Refined Saltpetre, granulated Nitrate-Potash," which samples were a part of a shipment made on June 15, 1907, by L. Sonneborn Sons from Avondale, N. J., to Morrison, Plummer & Co., Chicago, Ill.

One of the samples was subjected to analysis in the Bureau of Chemistry of the Department of Agriculture and the following results obtained and stated

	Per cent.
Moisture	0.46
Chlorid (calculated as sodium chlorid)	7.28
Sulphates	Trace.

The pharmacopœial standard for potassium nitrate (pure double-refined saltpetre) is 99 per cent pure, and as the analysis showed the above-mentioned sample to contain 7.28 per cent of sodium chlorid, it was evident that it was adulterated and misbranded within the meaning of sections 7 and 8 of the act. The Secretary of Agriculture having, on June 12, 1908, afforded the manufacturers an opportunity to show any fault or error in the aforesaid analysis and they having failed to do so, the facts were duly reported to the Attorney-General on November 17, 1908, and the case referred to the United States attorney for the district of New Jersey, who filed an information against the said L. Sonneborn Sons (Incorporated), with the result hereinbefore stated.

No. 87. *Misbranding of Evaporated Apples.* (As to quality.)

The facts in the case were as follows:

On January 30, 1908, an inspector of the Department of Agriculture purchased from George R. Liston, Olney, Ill., samples of an article of food contained in packages labeled "Empire Brand Choice Funsten Evaporated Apples. One Pound. Made from best selected apples. Are healthful, delicious, and most desirable for family use. Choice Evaporated Apples. Made from best selected apples." These samples were part of a lot of dried apples shipped by R. B. Henley & Co. from Cincinnati, Ohio, to said Liston. The goods so shipped had been purchased by said Henley & Co. from The Bruns Brothers' Grocery Company in Cincinnati, Ohio, and the invoice covering the said sale by the said The Bruns Brothers' Grocery Company contained the following guaranty: "Articles on this invoice guaranteed under the Pure Food and Drugs Act, June 30, 1906." The samples were duly submitted to examination in the Bureau of Chemistry of the United States Department of Agriculture, and it was found that they were prepared from ordinary drying stock, contained a large quantity of worm-eaten pieces, and were not sufficiently trimmed. It was thus apparent that they were misbranded within the meaning of section 8 of the Food and Drugs Act, and in compliance with section 4 of the act, the Secretary of Agriculture accorded hearings to said Liston and the said Henley & Co. At the hearing Henley & Co. established the aforesaid guaranty from The Bruns Brothers' Grocery Company. No evidence was adduced to show any fault or error in the examination by the department, and, on November 20, 1908, the Secretary of Agriculture reported the facts to the Attorney General, who referred them to the United States attorney for the southern district of Ohio. Information was duly filed by the said United States attorney, with the result hereinbefore stated.

No. 88. *Adulteration of Milk.* (Added Water.)

The facts in the cases were as follows:

During the months of August, September, October, and November, 1908, Dr. William C. Woodward, health officer of the District of Columbia, acting by authority of the Secretary of Agriculture of the United States, in pursuance of regulation 3 of the rules and regulations for the enforcement of the Food and Drugs Act of June 30, 1906, caused to be purchased samples of milk from the following-named persons and firms, all conducting business in Washington, D. C.:

C. L. Bailey, 237 G street N. W.; P. B. Holt & Bro., 17 Fourth street N. E.; Philip Hettenkemer, 301 Fourth street N. E.; Geo. A. Wise, 3310 P street N. W.; John Allen, 1744 Eighth street N. W.; Frank E. Altemus, Fourteenth and W streets N. W.; Albert Schapiro, 529 Virginia avenue S. E.; Whitehead & Reed, Twelfth and D streets N. W.; William A. Sanger, 458 Louisiana avenue N. W.; Soul Berman, 521 Twenty-third street N. W.; Charles E. Vernon & Co., 707 H street N. E.; Charles Harbin, Ninth and F streets N. E.; Frank Mace, 700 F street N. E.;

Julia Poore; Richardson & Jarboe, 407 Thirteen-and-a-half street N. W.; and Blanche Siddall, 611 D street N. W. The said several samples were promptly submitted to analyses, and it was found that they were adulterated within the meaning of section 7 of the Food and Drugs Act of June 30, 1906, in that water had been mixed with the milk so as to reduce and lower its quality and strength. Opportunity to be heard was duly accorded the said several persons and firms, under the provisions of section 4 of the said Food and Drugs Act. At the hearing accorded C. L. Bailey, he produced the guaranty of Griffith & Griffith, dealers from whom he purchased the milk, and proceedings were therefore discontinued as to him, but continued against said Griffith & Griffith. No evidence having been produced by the said several persons and firms to show any fault or error in the results of the aforesaid analyses of the milk, the facts were duly reported to the United States attorney for the District of Columbia, who forthwith filed informations against the said persons and a partner of the said firms, with the results hereinbefore stated.

No. 89. *Misbranding of Evaporated Apples.* (Underweight.)

The facts in the case were as follows:

On or about January 19, 1909, an inspector of the Department of Agriculture located in the possession of L. Kahn, Marshall, Texas, 65 cases of evaporated apples, labeled, "Choice Evaporated Apples, 48 1-lb. Cartons, Michael Doyle & Co., Rochester, New York, Favorite Brand." The goods had been shipped to L. Kahn by the Silbernagel Company (Limited), Shreveport, La., on December 10, 1908. A representative number of cartons was weighed by the inspector, and the average net weight of each package was found to be thirteen and five-sixths ounces, and in no instance was the gross weight of the packages found to equal one pound. As the statement was made in the label on each case that the individual packages contained therein weighed 1 pound each, the goods were misbranded in violation of section 8 of the act, and on January 20, 1909, the facts were reported by the Secretary of Agriculture to the United States attorney for the eastern district of Texas, who filed a libel for seizure and condemnation of the goods, with the result hereinbefore stated.

The following is a list of the persons accused, the foods found to be adulterated or mislabeled, and the nature of the offenses, which were included in the report of the Director of the State Laboratory to this Board on August 18, 1909. These persons were afforded an opportunity to be heard before this Board, as provided in said act, on September 4, 1909, and after such hearing, the findings of the Director being sustained, these cases were referred to the district attorneys of the several counties for prosecution:

Certif- cate No.	Material.	Violation.	Name of Dealer.	Locality.
608	Ice cream -----	Fat below standard -----	I. Otsuki -----	Oxnard
609	Ice cream -----	Fat below standard -----	G. Yoshizaki -----	Los Angeles
610	Ice cream -----	Fat below standard -----	M. Avesian -----	Los Angeles
611	Vinegar -----	Mislabeled. Deficient in solids and ash -----	Rollins & Co. -----	Los Angeles
612	Vinegar -----	Below standard. Solids and ash -----	O. F. Peck -----	Los Angeles
613	Vinegar -----	Mislabeled. Deficient in solids and ash -----	Eastern Cider and Vinegar Co. -----	Los Angeles
614	Vinegar -----	Below standard. Solids and ash -----	G. Lazzaroni -----	Santa Monica
619	Cherry syrup ---	Mislabeled. Contains coal-tar color -----	C. H. Lewis -----	Los Angeles
620	Wild cherry syrup -----	Mislabeled. Contains coal-tar color -----	I. M. Purdy -----	Los Angeles
622	Ginger syrup ---	Mislabeled. Contains benzoates -----	Baldrige Drug Co. ---	San Diego
623	Raspberry Ext.	Mislabeled. Coal-tar color -----	Hochheimer & Co. ---	Bakersfield

List of Persons Accused and Nature of the Offenses—Continued.

Certif- cate No.	Material	Violation.	Name of Dealer.	Locality.
626	Vanilla Ext.	Below standard. Vanilla resins	Sunrise Co.	Huntington Beach
627	Fellows' Stomach Bitters	Mislabeled. Contains alcohol	F. E. Gresslor	San Diego
631	Foley's Pain Relief	Mislabeled. Contains alcohol	W. W. Ayers & Co.	Highgrove
634	Cough syrup	Mislabeled. Contains alcohol	K. E. Watson	Orange
635	Sartoin	Mislabeled. Not a skin food	I. M. Poggi	Oxnard
639	Chopped meat	Adulterated. Sulphur dioxide	R. E. Eusten	Santa Monica
640	Rex Brand Chicken Pate with Ham	Adulterated with boron compound	A. H. McCollum	Los Angeles
641	Rex Brand Ham Loaf	Adulterated with boron compound	Taylor Grocery	Pasadena
642	Rex Brand Beef Loaf	Adulterated with boron compound	D. W. Herlihy	Pasadena
648	Prepared Mustard	Mislabeled. Contains turmeric	Debenedetti Bros.	San Bruno
651	Shasta Water	Substitution	The Times	Sacramento
652	Shasta Water	Substitution	Flaherty & Son	Sacramento
653	Shasta Water	Substitution	Walker & Burns	Sacramento
654	Shasta Water	Substitution	C. H. McCarthy	Sacramento
655	Bartlett Water	Substitution	Henry Sullivan	Sacramento
656	Bartlett Water	Substitution	George Wisseman	Sacramento
657	Shasta Water	Substitution	T. Castle & M. Barsi	Stockton
658	Shasta Water	Substitution	D. Battilana	Stockton
659	Shasta Water	Substitution	R. Verber	Stockton
660	Shasta Water	Substitution	P. Mignacco	Stockton
661	Blackberry Ext.	Mislabeled. Contains coal-tar color	Oxnard Bottling Wks.	Oxnard
662	Banana syrup	Mislabeled. Contains coal-tar color	C. A. Vogelmann	Modesto
663	Peppermint Ext.	Mislabeled. Contains coal-tar color	Lagomarsino-Parma Co.	Santa Barbara
665	Raspberry syrup	Mislabeled. Contains benzoates	W. Swetland	Los Angeles
666	Tomato catsup	Mislabeled. Contains benzoates	K. Yanagihare	Oxnard
667	Vinegar	Below standard. Solids and ash	Tiddy Bros.	Burlingame
668	Ice cream	Below standard in butter-fat	C. A. Vogelmann	Modesto

DEPARTMENT OF EPIDEMIOLOGY.

WILLIAM F. SNOW.

EPIDEMIOLOGICAL FIELD WORK.

The demands for investigation of epidemics during the month have been especially heavy on account of typhoid fever. None of these has, however, been very serious, and further mention of them will be deferred until the next issue of the Bulletin.

CALIFORNIA STATE BOARD OF HEALTH

LIST OF PUBLICATIONS FOR FREE DISTRIBUTION

REGULAR PUBLICATIONS

1. Bulletin, published monthly (back numbers on request).
2. Biennial Report, next report June 30, 1910 (back numbers on request).

SPECIAL PUBLICATIONS

3. California Pure Foods and Drugs Acts, 1909, with Rules and Regulations, Standards of Purity, and Decisions rendered by Secretary of Agriculture. Indexed.
4. General Health Laws of the State of California, 1909. Indexed, with alphabetical references to other statutes and sections relating to the subject.
5. Law for Registration of Vital Statistics in California, 1905. Amended by Chapters 92 and 236, Statutes of 1907.

ANNOUNCEMENTS

The State Board of Health desires to call attention to the distribution of Diphtheria Antitoxin and other biologic products.

Upon application arrangements will be made with any druggist to keep on hand, subject to requisition by the Health Officer of his community, packages of antitoxin for use in indigent cases. The following rates will apply to the product of the Cutter Laboratories of Berkeley:

1000 units.....	\$0.75	4000 units.....	\$2.25
2000 units.....	1.25	5000 units.....	2.75
3000 units.....	1.75		

Arrangements will also be made, upon application, to keep druggists and local health officers supplied with outfits for examination of the sputum, of throat cultures, and of the blood for typhoid fever and malaria.

Requests for the examination of water samples, and for the investigation of typhoid fever or other epidemics should be addressed to the Secretary. Whenever possibly a field officer will be sent out to make a detailed sanitary report, including the collection of the samples.

CALIFORNIA STATE BOARD OF HEALTH

LIST OF PUBLICATIONS FOR THE BUREAU

STANDARD PUBLICATIONS

**THE CALIFORNIA STATE BOARD OF
HEALTH BULLETIN WILL BE SENT
FREE TO ANY CITIZEN OF THE STATE
ON REQUEST.**